Making Dolly

Dolly and her surrogate mother

Dolly was part of a series of experiments at The Roslin Institute that were trying to develop a better method for producing genetically modified livestock. If successful, this would mean fewer animals would need to be used in future experiments. Scientists at Roslin also wanted to learn more about how cells change during development and whether a specialised cell, such as a skin or brain cell, could be used to make a whole new animal.

These experiments were carried out at The Roslin Institute by a team led by Professor Sir Ian Wilmut. Because of the nature of the research, the team was made up of many different people, including scientists, embryologists, surgeons, vets and farm staff.

Dolly was cloned from a cell taken from the mammary gland of a six-year-old Finn Dorset sheep and an egg cell taken from a Scottish Blackface sheep. She was born to her Scottish Blackface surrogate mother on 5th July 1996. Dolly's white face was one of the first signs that she was a clone because if she was genetically related to her surrogate mother, she would have had a black face.

Because Dolly's DNA came from a mammary gland cell, she was named after the country singer Dolly Parton.

Neuralink Corp. is an American neurotechnology company that is developing implantable brain–computer interfaces (BCIs), based in Fremont, California, as of 2022. Founded by Elon Musk and a team of seven scientists and engineers, Neuralink was launched in 2016 and was first publicly reported in March 2017.

Since its founding, the company has hired several high-profile neuroscientists from various universities.[9] By July 2019, it had received $158 million in funding (of which $100 million was from Musk) and was employing a staff of 90 employees. At that time, Neuralink announced that it was working on a "sewing machine-like" device capable of implanting very thin (4 to 6 μm in width[11]) threads into the brain, and demonstrated a system that reads information from a lab rat via 1,500 electrodes. They had anticipated starting experiments with humans in 2020, but have since moved that projection to 2023. As of May 2023, they have been approved for human trials in the United States.

The company has faced criticism for a large amount of euthanization of primates that underwent medical trials. Veterinary records of the monkeys showed a number of complications with electrodes being surgically implanted.

Mulder and Scully scan the code to find images of the Long Lines Building in New York City, the home of an NSA program called Titanpointe and a project codenamed Blarney. They run into Skinner, who gives them access to the X-Files online. Mulder and Scully discover that the files surrounding Langly were hacked and removed. They come across a file in the other gunmen's folders, leading them to Karen Hamby. She explains that they uploaded her and Langly's consciousness into a simulation that would come to life when they died. Hamby adds that Langly's virtual consciousness sent the message. Before Hamby can finish explaining how to contact Langly's consciousness within the simulation she is shot and killed by the Russian man, who is shot by Scully in response.

Mulder uses Hamby's algorithms to communicate with Langly, who poignantly conveys the horror of virtual heaven. In his world, he eats hot dogs and doughnuts all day, the Ramones play every night and never fight, and the New England Patriots always lose. Langly tells them, however, that the great minds of the world within the virtual reality have been reduced to digital slaves, and the agents need to shut it down. Mulder and Scully enter the Long Lines Building. The agents are attacked on the stairway, but Scully escapes. Mulder is led to a room with Erika Price (Barbara Hershey), revealing that she is the one responsible for devising the simulation. Price insists she’s able to painlessly copy a person’s consciousness anytime they use a cellphone, and advises Mulder to change the way he looks at the world